WHAT IS CLAIMED IS:

1. An apparatus for performing physical and/or chemical operations comprising:

holding means provided with openings for an array of reactor vessels;

reactor vessels positioned totally or partly within the openings; and

connection means capable of connecting the reactor vessels and the holding means, the connection means being located on or in the holding means surrounding the openings in which the reactor vessels are positioned, wherein the connection means are reinforced by the presence of a support plate containing openings having diameters substantially matching the diameters of the openings in the holding means and being removably fitted to the holding means.

2. An apparatus according to claim 1, wherein the connection means are located in recesses located in or at the surface of the holding means.

3. An apparatus according to claim 2, wherein the recesses are tapered in the direction of the openings.

4. An apparatus according to claim 1, wherein the connection means are gaskets composed of compressible materials.

5. An apparatus according to claim 4, wherein the connection means are in the form of O-shaped rings.

6. An apparatus according to claim 1, wherein the openings of the support plate match the openings of the holding means and further wherein the support plate has notches and/or holes to reduce the weight of the support plate.

7. An apparatus according to claim 1, wherein the connection means are in the form of gaskets which together with a cover means for the

array of reactor vessels are capable of creating a leak-tight seal when the cover means is removably fitted to the holding means.

8. An apparatus according to claim 7, wherein the gaskets are in the form of O-rings which, together with a cover means for an array of cylindrical reactor vessels, are capable of creating a leak-tight seal when the cover means is removably fitted to the holding means.

9. An apparatus according to claim 7, wherein the cover means comprises a solid plate on top of the surface of the holding means.

10. An apparatus according to claim 9, wherein the cover means comprises a plate matching the openings of the holding means whilst the openings of the cover means are closed with permeable material.

11. An apparatus according to claim 7, wherein the cover means is composed of a solid plate having openings matching at most the diameters of the openings of the holding means whilst septa covering the tops of the reactor vessels are present between the surface of the holding means and said cover means.

12. An apparatus according to claim 7, wherein the cover means comprises a plate having openings having diameters matching at most the diameters of the openings of the holding means, the openings being provided with pressure relief valves.

13. An apparatus according to claim 7, wherein the cover means comprises a plate having openings having diameters of at most the diameters of the openings of the holding means, the openings being provided with condensing means.

14. An apparatus according to claim 7, wherein the cover means comprises a plate having openings having diameters matching at most the diameters of the openings of the holding means, the openings being provided with filtration means.

15. An apparatus according to claim 7, wherein the cover means comprises a plate having openings having diameters matching at most the diameters of the openings of the holding means, the openings being provided with manifolds.

16. An apparatus according to claim 7, wherein the cover means comprises a plate having openings having diameters matching the openings of the holding means, the openings being provided with stirrer means.

17. An apparatus according to claim 16, wherein the stirrer means are provided with shafts allowing them to be operated by a central motor.

18. An apparatus according claim 1, wherein reactor vessels are glass or steel reactor vessels.

19. An apparatus according to claim 18, wherein bottoms of the reactor vessels protrude through bottom of the holding means.

20. An apparatus according to claim 1, wherein the holding means are made of steel.

21. An apparatus according to claim 6, wherein the support plate is made of the same material as the holding means.

22. An apparatus according to claim 7, wherein the cover means is made of the same material as the holding means.

23. An apparatus according to claim 22, wherein the support plate or the cover means are made of the same material as the holding means.

24. A process for performing physical and/or chemical operations comprising:

providing holding means with openings for an array of reactors vessels;

positioning reactor vessels totally or partly within the openings; and

providing connection means capable of connecting the reactor vessels and the holding means, which connection means are located on or in the holding means surrounding the openings in which the reactor vessels are positioned, wherein the connection means are reinforced by the presence of a support plate containing openings having diameters substantially matching the diameters of the openings in the holding means and being removably fitted to the holding means.

25. A process according to claim 24, further comprising a mixing operation.

26. A process according to claim 25, wherein the mixing operation is performed by an orbital shaker.

27. A process according to claim 25, wherein the mixing operation comprises rod-shaped stirrers present in the reaction vessels during mixing.

28. A process according to claim 24, further comprising a mixing operation, wherein the mixing operation is performed by ultrasound to initiate and maintain mixing.

29. A process according to claim 24, further comprising a heating operation.

30. A process according to claim 29, wherein the heating operation is performed together with a mixing operation.

31. A process according to claim 30, further including a cooling operation.

32. A process according to claim 24, further including a centrifugal operation.

33. A process according to claim 24, further including an evaporation operation.